CLAIMS

What is claimed is:

1. A system for stabilizing a floating catenary anchor leg mooring system used in the production of oil from subsea reservoirs comprising:

a hollow buoy assembly for floating on the sea surface;

said hollow floating buoy assembly including a cylindrical hull portion having a center of gravity which is below the sea surface;

said cylindrical hull portion further including a ballast compartment having a portion below the sea surface;

said ballast compartment being constructed and arranged to adjust the natural pitch and roll periods of said hollow buoy assembly to reduce pitch and roll in response to wind and wave forces;

means for providing a path for oil to travel from the subsea reservoirs to a tanker.

2. The system for stabilizing a floating catenary anchor leg mooring system as defined in Claim 1 wherein said ballast compartment is constructed and arranged to be filled with sea water.

4. The system for stabilizing a floating catenary anchor leg mooring system as defined in Claim 1 wherein said cylindrical hull portion has a diameter which is greater than two times its height.

5. The system for stabilizing a floating catenary anchor leg mooring system as defined in Claim 4 wherein said ballast compartment is substantially cylindrical and follows the circumference of said cylindrical hull portion.